Psychology 230Bm -- Laboratory Practical Students' Guide

Practical 3: Organisation in Memory as an Aid to Recall

This demonstration concerns the effects of organisation on learning and recall, and replicates a study by Bower, Clark, Lesgold and Winzenz (1969). The effect of organisation on memory is a well-studied phenomenon. Information that is organised in a meaningful way is thought by most of us to be easier to remember. However, Bower and his colleagues noticed that many laboratory experiments on organisation showed only weak effects, when comparing organised and unorganised lists of words. They thought that a well-designed experiment should show organisation to be a powerful variable in determining recall from memory. In other words, they hypothesised that Organisation during encoding would improve retrieval and recall (i.e., recall accuracy will be the better for organized word lists). The reason for their hypothesis is that when we learn isolated facts (unorganised) we don't know where to store them in memory. When it comes time to retrieve the information, we don't know where to look to find the information. When the information is organised, we can quickly decide where it fits best in memory (helping encoding and storage), and the organisational structure provides powerful cues for recalling the information (helping retrieval).

Each participant will study four different lists of 26 words each. The experiment has a between-subjects design with two groups. For one group of participants, the lists are arranged in conceptual categories, with heading terms at the top. For the other group, the words in the lists are in random order. Participants are given one minute to study each list, and then must try to remember all of the words, including the headings. Participants then have five minutes to recall the words in any order (free recall). After the recall period is over, they go through the procedure a second time. Recall is done using pencil and paper, with participants then going through the word list on the computer, marking which words were accurately recalled, and the number of intrusions (words "recalled" that weren't on the original list).

Additional Reading (optional)**:**

Bower, G. H., Clark, M., Lesgold, A. & Winzenz, D. (1969). Hierarchical retrieval schemes in recall of categorised word lists. Journal of Verbal Learning and Verbal Behavior, 8, 323-343.

Some questions for you to consider:

What is the dependent variable (measured)?
What is the independent variable (manipulated)?
Were any control procedures used?
Was there any pattern to the types of intrusions in your data?
What pattern in the data indicates an effect of organisation? Was the hypothesis supported?
What do you think would happen if we used recognition instead of recall in the experiment?
What if we used other kinds of stimuli? (e.g., the names of famous people instead of the minerals, animals etc.)?

Prepared by Samuel G. Charlton, Waikato University, 2002

Trial 1 Recall Sheet

Trial 2 Recall Sheet

Your data

Your Experimental Condition _____ (organised or disorganised)

Words recalled:

	Number recalled	Percent recalled	Number of intrusions
Trial 1			
Trial 2			

Group data

<u>Percent</u> of words recalled:

	Organised	Disorganised
Trial 1		
Trial 2		

Bar Chart – Group Data